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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/663,397

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Robert L. Koelzer

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EXAMINER

KING, BRADLEY T

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/663,397	Applicant(s) KOELZER, ROBERT L.	
	Examiner Bradley T. King	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 69-91 is/are pending in the application.
- 4a) Of the above claim(s) 75 and 87-90 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 69-74, 76-86 and 91 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 69-73, 76-79 and 91 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 3529743 in view of Bruehmann et al (US#6089831).

DE 3529743 discloses a system including; an engine 10, a supply device driven by said engine; a motor driven by the agency supplied by said supply device, a brake power source driven by said motor; a brake system powered by said brake power source; and a controller 53 in communication with said supply device, said controller having at least one input for receiving signals containing information about the vehicle; wherein said controller determines the rate at which to cause said supply device to supply the agency to said motor, thereby causing said motor to drive said brake power source at a desired rate. Note column 5, lines 5-25 as well as sensors 10a, 112 and control devices 96 and 104. DE 3529743 lacks the explicit disclosure of receiving an input reflecting air pressure (claim 69) and/or air dryer temperature (claim 91). Air pressure and temperature are well known in the art and further demonstrated by Bruehmann et al for controlling compressor operation. It would have been obvious to

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one of ordinary skill in the art at the time the invention was made to utilize information pertaining to air pressure or air temperature as known and further taught by Bruehmann et al in the system of DE 3529743 to ensure proper air pressure necessary for operation or maintain air temperature within acceptable limits, thereby preventing damage to the system.

Regarding claim 70, see hydraulic pump 95 and hydraulic motor 100.

Regarding claim 71, see the reservoir 13.

Regarding claim 72, see input 10a and 89.

Regarding claim 73, note that engine speed is reflective of the throttle position as broadly required by the claim.

Regarding claim 77, note input 112.

Claims 74, 82-86 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 3529743 and Bruehmann et al (US# 6089831), as applied to claim 69 above, in further view of in view of Eslinger et al (US# 5613744).

Regarding claim 74, DE 3529743 and Bruehmann et al disclose all the limitations of the instant claims with exception to the input of information relating to wheel speed. It is well known in the art and further taught by Eslinger et al to utilize wheel speed to control braking systems. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include wheel speed as taught by Eslinger et al as an input in the system of DE 3529743 to allow for ABS braking controls, thereby increasing the safety of the system.

Regarding claim 82, DE 3529743 and Bruehmann et al disclose all the limitations of the instant claims with exception to the particulars of the brake system. Eslinger et al teach an air braking system including a braking mechanism 18, a valve 30 and/or 38 connecting the reservoir to the braking mechanism, and a valve actuator connected to the valve (valve actuators are necessarily inherent for electrically controlled valves to operate). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a reservoir, brake mechanism, valve and valve actuator as taught by Eslinger et al as an obvious means of carrying out braking actuation in the system of DE 3529743, thereby providing controllable brake operation. Regarding claims 83 and 84, The Examiner takes Official Notice that floating calipers and fixed calipers are well known in the art and recognized alternative structures suitable for an intended purpose. Eslinger et al further teach a brake shoe as well as the broad "caliper". Column 2, lines 60-65. It further would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize floating or fixed calipers or brake shoes in the system of DE 3529743 and Eslinger et al as known in the art and obvious alternative structures for brake actuation. Also note *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 8 USPQ2d 1323 (Fed. Cir. 1988).

Claims 80-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 3529743 and Bruehmann et al (US# 6089831), as applied to claim 79 above in view of Koelzer et al (6439857).

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DE 3529743 and Bruehmann et al disclose all the limitations of the instant claims with exception to the explicit disclosure of the details of the air compressor. Swash plate compressors are well known in the art and further taught by Koelzer et al in the brake environment. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a swash plate compressor as known in the art and further taught by Koelzer et al in the system of DE 3529743 as an obvious means of providing compressed air with a compact and structurally simple unit. Also note *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 8 USPQ2d 1323 (Fed. Cir. 1988).

Response to Arguments

Applicant's arguments filed 3/12/2007 have been fully considered but they are not persuasive.

Regarding the rejection under 102, the rejection was inadvertently left in the last office action. The rejection has been withdrawn.

Regarding the rejection in view of Bruehmann, it is noted that the base reference discloses the control of an intermediate supply device to control a compressor. Note that pump 95 is an adjustable pump. While Applicant contends that Bruehmann teaches away for the modification, the basis of this argument is not clear. It is noted that the base reference discloses a system which regulates an intermediate device to ensure adequate compressor function. The further control or cycling of the compressor such as taught by Bruehmann to maintain proper air pressure and temperature appear to be perfectly applicable to the brake system. The fact that the system of Bruehmann is

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an alternate construction (mechanical connection as opposed to the hydrostatic system of DE 3451446) does not constitute a "teaching away" from the use of temperature or pressure as a criteria of control. Also note that the claims broadly recite that the ECE determines the rate at which to cause said supply device to supply the agency to said motor based *at least in part* on the received information. The received information is broadly defined by the claims as information reflecting air pressure.

It is maintained that:

1. Using pressure and/or temperature as a criteria of control as taught by Bruehmann for the intermediate device of Bosch would result in an ECU that controls a rate that supply device supplies an agency to a motor that controls the brake power source. It is further maintained that there is a reasonable expectation of success to the modification.
2. DE 3451446 discloses controlling a rate that a supply device supplies an agency to a motor. Utilizing pressure and/or temperature as a criteria of control as taught by Bruehmann would result in an ECU that controls a rate that the supply device supplies an agency to a motor that controls the brake power source based at least in part on information reflecting air pressure and/or temperature.
3. It is maintained that the control of mechanical coupling/uncoupling taught by Bruehmann is a functional related to the hydrostatic coupling/uncoupling and

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control utilized by DE 3451446 and does not constitute a teaching away from the combination.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley T. King whose telephone number is (571) 272-7117. The examiner can normally be reached on 11:00-7:30 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Bradley T King
Primary Examiner
Art Unit 3683

5/29/07

BTK